LIST OF CONTENTS

JANUARY

SOVIET UNION HONOUR ISSUE

Current Analytical Chemistry in the USSR

R. A. Chalmers	V	Foreword
Yu. A. Zolotov	1	Analytical chemistry in the Soviet Union
Ye. N. Dorokhova	9	Analytical chemistry teaching in the USSR
M. E. Elyashberg, V. V. Serov and L. A. Gribov	21	Artificial intelligence systems for molecular spectral analysis
B. F. Myasoedov	31	Recent advances in the analytical chemistry of the transplutonium elements
Kh. Z. Brainina	41	Advances in voltammetry
R. V. Golovnya	51	Determination of volatile components of systems not in thermodynamic equilibrium
G. I. Ramendik, B. M. Manzon, D. A. Tyurin, N. E. Benyaev and A. A. Komleva	61	Perspectives in the development of the theory of spark-source and laser-plasma source mass-spectrometry
K. B. Yatsimirskii and L. P. Tikhonova	69	Catalytic kinetic methods for the determination of platinum metals
A. T. Pilipenko and L. I. Savransky	77	Selectivity and sensitivity of metal determination by co-ordination compounds
S. B. Savvin and R. F. Gur'eva	87	5-Azo derivatives of rhodanine and its analogues in the analytical chemistry of the noble metals
I. P. Alimarin, V. I. Fadeeva, G. V. Kudryavtsev, I. M. Loskutova and T. I. Tikhomirova	103	Concentration, separation and determination of scandium, zirconium, hafnium and thorium with a silica-based sulphonic acid cation-exchanger
O. M. Petrukhin, E. N. Avdeeva, Yu. V. Shavnya, V. P. Yankauskas, R. M. Kazlauskas, A. S. Bychkov and Yu. A. Zolotov	111	Ion-selective electrodes for gold and silver determination
G. G. Devyatykh and Yu. A. Karpov	123	The analysis of solid and liquid high-purity substances
G. G. Devyatykh, Yu. A. Karpov, V. A. Krylov and O. P. Lazukina	133	Laser–ultramicroscopic method of determining suspended particles in high-purity liquids
B. V. L'vov, L. K. Polzik and L. F. Yatsenko	141	The effect of thermal sample pretreatment on the absorption signal in graphite furnace AAS
I. G. Yudelevich, L. V. Zelentsova and N. F. Beisel	147	Atomic-absorption methods for analysis of high-purity substances
L. L. Kunin, A. A. Bogdanov and V. I. Rodionov	153	Determination of oxygen in fusible metals by use of solid electrolyte cells
V. V. Nesterov, O. I. Kurenbin, V. D. Krasikov and B. G. Belenkii	161	Determination of molecular-weight distribution and average molecular weights of block copolymers by gel-permeation chromatography
E. S. Gankina, I. I. Efimova, J. J. Kever and B. G. Belenkii	167	Identification of block copolymers and determination of their purity by thin-layer chromatography
B. I. Petrov and V. P. Zhivopistsev	175	Liquid–liquid extraction of elements by antipyrine and diantipyrylmethane salts from non-aqueous solutions or in systems without an organic solvent
Yu. A. Bankovsky, M. V. Vircavs, O. E. Veveris, A. R. Pelne and D. K. Vircava	179	Preconcentration of microamounts of elements in natural waters with 8-mercaptoquinoline and bis(8-quinolyl) disulphide for their atomic-absorption determination

V. G. Berezkin and S. L. Bolotov	183	Thin-layer chromatography with mobile phases of low volatility
V. I. Chaplygin, Yu. Ya. Kuzyakov, O. A. Novodvorsky and N. B. Zorov	191	Determination of alkali metals by laser-induced atomic-ionization in flames
V. N. Muzgin, Yu. B. Atnashev, V. E. Korepanov and A. A. Pupyshev	197	Electrothermal atomic-absorption and atomic-fluorescence spectrometry with a tungsten-coil atomizer
I. F. Dolmanova, T. N. Shekhovtsova and V. V. Kutcheryaeva	201	Assay of enzyme effectors
G. I. Romanovskaya, V. I. Pogonin and A. K. Chibisov	207	Fluorescence determination of trace amounts of uranium(VI) in various materials by a repetitive laser technique
V. F. Toropova, A. R. Garifzyanov and I. E. Panfilova	211	Steric and hydrophobic effects of substituents in extraction of metal complexes with *O,O*-dialkyldithiophosphoric acids
V. A. Nazarenko, V. P. Antonovich and N. A. Veschikova	215	Photometric determination of tungsten in rocks with trihydroxyfluorones
H. C. Budnikov, V. N. Maystrenko and Yu. I. Murinov	219	Electrochemical investigation of palladium complexes with organic sulphides and their use in extraction differential pulse polarography
Yu. S. Nikitin, N. B. Morozova, S. N. Lanin, T. A. Bol'shova, V. M. Ivanov and E. M. Basova	223	Liquid chromatography of palladium and non-ferrous metal chelates with 1-(2-pyridylazo)-2-naphthol
V. P. Chizhkov, S. S. Pavlov, N. V. Sterkhov, V. M. Ravikovich, E. F. Litvin and E. A. Varyvonchik	227	Pulse circulation gas chromatography on capillary columns
Papers Received	i	
Publications Received	ii	
Questionnaire: Software Survey Section	iii	

FEBRUARY

Editorial	III	
Talanta Advisory Board	V	
T. U. Aualiitia and **W. F. Pickering**	231	The effect of inorganic particulates on the ASV signals of Cd, Pb and Cu
Kazuhisa Yoshimura and **Hirohiko Waki**	239	Enhancement of sensitivity of ion-exchanger absorptiometry by using a thick ion-exchanger layer
M. J. Adams and **G. J. Ewen**	243	Interfacing an analogue infrared spectrometer to a microcomputer
Joseph Wang and **Javad M. Zadeii**	247	Adsorptive stripping voltammetric measurements of trace levels of uranium following chelation with Mordant Blue 9
G. T. Abou Zeid, J. B. Headridge and **C. White**	253	An apparatus for the emission spectrometric determination of nitrogen released into an argon gas stream by chemical reactions in solution
C. L. Chakrabarti, S. B. Chang, P. W. Thong, T. J. Huston and **Shaole Wu**	259	Studies of atomization from a graphite platform in graphite-furnace atomic-absorption spectrometry
Scott P. Ericson, Michael L. McHalsky and **Bruno Jaselskis**	271	Ultratrace molybdenum determination in biological samples by graphite-furnace atomic-absorption spectrometry
Kenji Isshiki and **Eiichiro Nakayama**	277	Determination of ultratrace amounts of cobalt by catalysis of the tiron–hydrogen peroxide reaction with an improved continuous-flow analysis system
D. W. Rogers and **B. J. Siedman**	283	Hydrogenation enthalpimetry—I. Microcomputer-assisted calibration and data-acquisition

Short Communications

Abdel-Aziz M. Wahbi, Mohammad A. Abounassif, El-Rasheed A. Gad-Kariem and Hassan Y. Aboul-Enein 287 Spectrophotometric and fluorimetric determination of nomifensine maleate

D. Goforth and J. D. Winefordner 290 A graphite-tube furnace for use in laser-excited atomic-fluorescence spectrometry

S. P. Arya, J. L. Malla and Veena Slathia 293 A selective spectrophotometric method for determination of copper with ferron

Saeed Ahmad, R. D. Sharma and I. C. Shukla 296 Microdetermination of oxprenolol hydrochloride and metoprolol tartrate with ammonium metavanadate

Software Survey Section 299 Databank; Labmaster; Labrom; Numbermaster; Signwriter; Paperbase De Luxe

Papers Received i

Publications Received ii

Errata iv

Notes for Authors v

Questionnaire: Software Survey Section vii

MARCH

S. K. Gogia, D. Singh, O. V. Singh and S. N. Tandon 303 Study on the synergistic extraction of cobalt(II) with lower fatty acids in the presence of heterocyclic amines and some metal ion separations

Barry Chiswell and Mazlin Bin Mokhtar 307 Speciation of manganese in fresh water—I. Use of EPR studies

S. Koch und G. Ackermann 313 Untersuchungen zur Anwendung ternärer Komplexe in der Photometrie—IV. Das Chelat FeY^- (H_4Y = EDTE) als Reagens für Phenole

F. Salinas, J. J. Berzas Nevado and P. Valiente 321 Kinetic spectrophotometric determination of nanogram levels of manganese by use of the salicylaldehyde guanylhydrazone–hydrogen peroxide system

M. C. Gutierrez, S. Rubio, A. Gómez-Hens and M. Valcárcel 325 Simultaneous determination of histidine and histamine by second-derivative synchronous fluorescence spectrometry

Liu Jin-Chun and Arthur Chow 331 Extraction of zirconium and hafnium thiocyanate with polyurethane foam

M. Ejaz and M. A. Qureshi 337 Extraction and preconcentration of selenium from aqueous solutions and its determination in water and hair samples by atomic-absorption spectrophotometry

Yoshiki Sohrin, Kenji Isshiki, Tooru Kuwamoto and Eiichiro Nakayama 341 Determination of germanium by graphite-furnace atomic-absorption spectrometry

F. García Sánchez, C. Cruces Blanco and A. Heredia Bayona 345 Non-aqueous fluorimetric determination of scandium in silicate rocks

P. Viñas, M. Hernández Córdoba and C. Sánchez-Pedreño 351 Kinetic determination of iodide, based on the chlorpromazine–bromate reaction

Anil C. Mehta 355 Pharmacokinetics and the analytical chemist

Ali S. Al-Omair and Samuel J. Lyle 361 Some ion-exchange resins for anion-chromatography

Short Communications

Y. K. Agrawal and D. R. Patel 365 Spectrophotometric determination of clofibrate

B. V. Rao, V. G. Radha Menon and K. C. Sarojam 367 Spectrophotometric determination of cobalt in iron-, cobalt- and nickel-base alloys

Masaaki Nakamura, Yutaka Sakanashi, Hiroaki Chikushi, Fumiaki Kai, Shigeya Sato, Toshie Sato and Sumio Uchikawa 369 Synthesis of 2-(3,5-dichloro-2-pyridylazo)-5-dimethylaminophenol and its application to the spectrophotometric determination of cobalt

C. S. P. Sastry and D. Vijaya 372 Spectrophotometric determination of some insecticides with 3-methyl-2-benzothiazolinone hydrazone hydrochloride

Analytical Data
F. Rösch, Tran Kim Hung, M. Milanov and V. A. Khalkin 375 Electromigration of carrier-free radionuclide ions. Bismuth complexes in aqueous solutions of oxalic, fumaric and succinic acids

Papers Received i

Publications Received ii

Notice iii

Questionnaire: Software Survey Section v

APRIL

Richard C. Graham 381 Design of software for thermal titrations

Robert Fournaise et **Christian Petitfaux** 385 Etude de la formation des complexes en solution aqueuse—III. Nouvelle méthode d'affinement des constantes de stabilité des complexes et des autres paramètres des titrages protométriques

Béla Noszál and **Mária Juhász** 397 Determination of sulphate by pH titration

E. Meintjies, F. W. E. Strelow and **A. H. Victor** 401 Separation of bismuth from gram amounts of thallium and silver by cation-exchange chromatography in nitric acid

Adam Hulanicki and **Tadeusz Krawczyński vel Krawczyk** 407 Behaviour of a chalcocite copper ion-selective electrode in solutions of iron(III) ions

Stanisław Głab, Elżbieta Skrzydlewska and **Adam Hulanicki** 411 Determination of protonation constants by coulometric titration

Nancy E. Fortier and **James S. Fritz** 415 The effect of temperature on single-column ion-chromatography of metal ions

Shigeya Sato, Mari Iwamoto and **Sumio Uchikawa** 419 Extraction and spectrophotometric determination of molybdenum(VI) with Malachite Green and *p*-chloromandelic acid

Geraldine M. Huitink 423 Constant Calcein Blue: an indicator for spectrofluorometric calcium determination

J. G. Sen Gupta 427 Determination of rubidium, strontium and barium in barite by atomic-absorption spectrometry after dissolution in disodium ethylenediaminetetra-acetate

Short Communications
Rokuro Kuroda, Koichi Oguma, Noriko Mukai and **Masatoshi Iwamoto** 433 Anion-exchange enrichment and spectrophotometric determination of uranium in sea-water

Morio Nakayama, Tomoo Tanaka, Motoko Tanaka, Masahiko Chikuma, Kazuo Itoh, Hiromu Sakurai, Hisashi Tanaka and **Terumichi Nakagawa** 435 Sequential collection of selenium(IV) and selenium(VI) by the use of an anion-exchange resin loaded with bismuthiol-II sulphonic acid

C. Sârbu, C. Mărutoiu, M. Vlassa and **C. Liteanu** 438 Direct fluorescent detection of chromatographically separated amino-acids by means of 9-isothiocyanatoacridines

O. R. Idowu and **O. O. P. Fuboya** 441 New derivatives of *N*-nitrosamines

Analytical Data
Raija Petrola, Paula Lampén and **Seppo Lindroos** 445 Stability order of the lanthanide chelates of two disubstituted 3-hydroxy-4*H*-pyran-4-ones in aqueous solution

J. Katona-Balázs, G. Molnár, Zs. Nemes-Vetéssy and K. Burger 449 Potentiometric study of silver ion co-ordination by azo dyes

Papers Received i

Questionnaire: Software Survey Section iii

MAY

The Ronald Belcher Memorial Award III

Jan Langmaier, František Opekar and Věra Pacáková 453 Application of a metallized membrane electrode for the determination of gaseous sulphur compounds after reductive pyrolysis

S. Yamada, C. Sakane and T. Ogawa 461 A sub-microlitre two-photon ionization detector for high-performance liquid chromatography

Stuart J. Nagourney, Merrill Heit and Donald C. Bogen 465 Electrothermal atomic-absorption spectrometric analysis of lake waters for Mn, Fe, Pb and Cd

Marissa Bonilla-Alvarez, Margo Palmieri, Debra Davis and James S. Fritz 473 2,6-Diacetylpyridine bis(arylhydrazone) derivatives as analytical reagents for uranium

Ghazi Al-Jabari and Bruno Jaselskis 479 Chemical reduction and spectrophotometric determination of silver, copper and nickel

Anna Maria Maccioni, Pietro Traldi and Lucio Doretti 483 High-energy collisonal spectroscopy in qualitative and quantitative analysis of diesel particulates

V. S. Sastri 489 Methods for determining hydrogen in steels

Paul Ek and Stig-Göran Huldén 495 A continuous hydride-generation system for direct current plasma atomic-emission spectrometry (DCP–AES). Determination of arsenic and selenium

Short Communications

J. S. Adsul, C. C. Dias, S. G. Iyer and Ch. Venkateswarlu 503 Use of Chelex 100 in determination of bismuth in sulphide ores, concentrates, metals and alloys

Om P. Bhargava, Paul G. Bailey and Gord R. Overholt 505 Rapid determination of molybdenum in ferromolybdenum and molybdenum additives, with oxine

N. Thankarajan and K. Krishnankutty 507 Phthalhydrazidylazoacetylacetone as a chemiluminescent acid–base indicator

Aristotelis Xenakis, Claude Selve and Christian Tondre 509 Transport of alkali-metal picrates through liquid membranes: coupled action of w/o microemulsion droplets and lipophilic crown-ether carriers

Minliang Xu and Gordon A. Parker 512 Spectrophotometric determination of tungsten(VI) with rutin and cetyltrimethylammonium bromide

D. Baylocq, W. Kayata et F. Pellerin 515 Dosage des acides faibles en milieu ammonium quaternaire concentré

Analytical Data

A. Matilla Hernandez, S. Gonzalez Garcia, J. M. Tercero Moreno, M. Candida T. A. Vaz and L. Vilas Boas 519 Uranyl complexes of α-carboxypolymethylenediaminetetra-acetic acids

M. Teresa S. D. Vasconcelos and Adélio A. S. C. Machado 525 Acid–base ionization equilibria of 1-(2-carbamylethyl) imidazole and its 2-methyl and 2-ethyl derivatives

Papers Received i

Publications Received ii

Notices iii

Questionnaire: Software Survey Section v

Pharmacia Prize	III	
Louis Gordon Memorial Award	IV	
C. Locatelli, F. Fagioli, C. Bighi and T. Garai	529	Second harmonic a.c. anodic stripping voltammetry of metals at trace level. Simultaneous determination of lead and thallium, and bismuth and antimony
M. Mariaud et P. Levillain	535	Dosage spectrophotométrique des ions cyanure libres par formation du complexe mixte bis(bathophénanthroline) dicyano fer(II)
Huang Huiliang, Daniel Jagner and Lars Renman	539	Automated determination of lead in urine by means of computerized flow potentiometric stripping analysis with a carbon-fibre electrode
Walace A. de Oliveira and Afonso S. Mendes	543	Determination of calcium and magnesium in limestone and dolomite by enthalpimetric flow-injection analysis
Ajay Shah and Surekha Devi	547	A new chelating ion-exchanger containing *p*-bromophenylhydroxamic acid as functional group—IV. Column separations on a hydroxamic acid resin
S. Quintar de Guzman, O. M. Baudino and V. A. Cortinez	551	Design and evaluation of an electrochemical sensor for determination of dissolved oxygen in water
Zhang Qing and Huang Yuying	555	Polarographic adsorptive waves of alkaline-earth metal complexes with thymolphthalexone
Joseph Wang, Peng Tuzhi and Kurian Varughese	561	Adsorptive preconcentration for voltammetric measurements of trace levels of zirconium
K. Sekine, T. Imai and A. Kasai	567	Liquid–liquid extraction separation and sequential determination of plutonium and americium in environmental samples by alpha-spectrometry
Short Communications		
R. von Wandruszka and J. D. Winefordner	571	Fluorescence in thin liquid films: a simple model
S. Jaya, T. Prasada Rao and G. Prabhakara Rao	574	Anodic-stripping voltammetric determination of arsenic at a copper-coated glassy-carbon electrode
Hai-Long Wu and Ru-Qin Yu	577	A PVC membrane pH-sensitive electrode based on methyldioctadecylamine as neutral carrier
H. van Beek, H. C. A. Greefkes and A. J. Baars	580	Determination of copper, iron, manganese, lead and cadmium in automatically wet-digested animal tissue by graphite-furnace atomic-absorption spectrometry with Zeeman background correction
José M. Andrés, C. Romero and José M. Gavilan	583	Potentiometric titration of fulvic acids from lignite, in dimethylformamide and dimethylsulphoxide media
A. Parczewski	586	Signal processing with a summing operational amplifier in multicomponent potentiometric titrations
Analytical Data		
H. Ménard, Y. Lefebvre et J. Khorami	589	Etude de l'adsorption de substances organiques sur l'amiante chrysotile par chromatographie en phase gazeuse
Annotation		
Santi Capone, Alessandro De Robertis, Concetta De Stefano, Silvio Sammartano and Rosario Scarcella	593	Ionic strength dependence of formation constants—X. Proton activity coefficients at various temperatures and ionic strengths and their use in the study of complex equilibria
Software Survey Section	599	STATSTREAM; TADPOLE; MOLGRAF; REFSYS; REFSCAN; DADiSP; MULTI-Q; KINETIC EBDA LIGAND LOWRY; MKMODEL
Papers Received	i	
Notices	iii	
Questionnaire: Software Survey Section	v	

JULY

Salah M. Sultan 605 Spectrophotometric determination of paracetamol in drug formulations by oxidation with potassium dichromate

Anil C. Mehta 609 Drug determination in biological fluids—approaches to method validation

Annika Carlsson, Ulla Lundström and Åke Olin 615 Spectrophotometric determination of bromide (and iodide) in a flow system after oxidation by peroxodisulphate

Mary Ryan-Hotchkiss and J. D. Ingle, Jr. 619 Design and characterization of an intensified diode array data-acquisition system for spectrometric measurements

G. Zaray, J. A. C. Broekaert, R. G. Böhmer and F. Leis 629 Comparative study of analytical inductively-coupled argon-plasma discharges using different outer gases

F. García Sánchez, M. Hernández Lopez and J. C. Marquez Gomez 639 A graphical derivative approach to the photometric determination of lutetium and praseodymium in mixtures

P. L. Desbène, J. Berthelot, M. Ouchefoun, C. Guette, J. J. Basselier, R. Boulet and A. Desbène-Monvernay 645 Étude analytique des produits lourds du pétrole—V. Bromation des résidus lourds pétroliers au moyen d'un réactif original, le tribromure de tétrabutylammonium, et essais préliminaires de détermination d'un indice de brome applicable aux fractions lourdes

Short Communications

Basant Sahu and Usha Tandon 653 Use of *N*-benzyl-2-naphthohydroxamic acid as a highly selective reagent for solvent extraction and spectrophotometric determination of vanadium(V)

F. Salinas, T. Galeano Díaz and J. C. Jiménez Sánchez 655 Spectrophotometric determination of iron by extraction of the iron(II)–5,5-dimethyl-1,2,3-cyclohexanetrione-1,2-dioxime-3-thiosemicarbazone complex

Wan Zhen and Chen Qiang 657 Hydrodynamic voltammetry at tubular electrodes—III. Determination of traces of bismuth by differential-pulse anodic-stripping voltammetry at a glassy-carbon tubular electrode with *in situ* mercury plating

Muhammad Nazir, Muhammad Khurshid Bhatty and Frank D. Guffey 661 Artifacts of the decalin–molecular sieve system in the analysis of mineral waxes

Minori Kamaya, Tetsuro Murakami and Eizen Ishii 664 Photometric determination of selenium with ferrocene

Yutaka Saito, Masaki Mifune, Suzuyo Nakashima, Junichi Odo, Yoshimasa Tanaka, Masahiko Chikuma and Hisashi Tanaka 667 Determination of hydrogen peroxide with *N,N*-diethylaniline and 4-aminoantipyrine by use of an anion-exchange resin modified with manganese–tetrakis(sulphophenyl)porphine, as a substitute for peroxidase

A. S. Issa, M. S. Mahrous, M. Abdel Salam and N. Soliman 670 The use of 2,3-dichloro-5,6-dicyano-*p*-benzoquinone for the spectrophotometric determination of some cardiovascular drugs

Analytical Data

A. M. Cameán Fernández and M. Guzmán Chozas 673 Colour specification of pyridine-2-aldehyde and 6-methylpyridine-2-aldehyde *p*-nitrophenylhydrazones as indicators for pH determination

Papers Received i

Questionnaire: Software Survey Section iii

AUGUST

Editorial III

Silve Kallmann 677 A survey of the determination of the platinum group elements

Jing Shi-lian, Li Shao-yuan, Wang Rong-rong, Ma Yi-zai, Yu Chu-ming, Yan Yan, Zhang Dong-hua, Sun Jina and Zhang Zhong-ming 699 A new type of Zeeman-effect atomic-absorption spectrophotometer

Rudolf Přibil and Madeleine Štulíková 705 An electrochemical stripping method for the selective determination of traces of silver

Drora Kaplan, Dan Raphaeli and Sam Ben-Yaakov 709 Application of personal computers in the analytical laboratory—III. ASV analysis

E. Klaos, R. Talkop and V. Odinets 715 Direct flame atomic-absorption determination of minor elements in argillites

Saad S. M. Hassan, M. A. Ahmed and F. S. Tadros 723 New liquid-membrane electrodes for direct determination of atropine in pharmaceutical preparations

Short Communications

S. C. Soundar Rajan 729 Determination of free acidity in antimony chloride solutions

Amir Besada 731 A facile and sensitive spectrophotometric determination of ascorbic acid

Toshiaki Hattori and Hitoshi Yoshida 733 Thermometric titration of cadmium with sodium diethyldithiocarbamate, with oxidation by hydrogen peroxide as indicator reaction

Andreas Diamantatos 736 Fire-assay collection of gold and silver by copper

Analytical Data

Harvey Diehl and Naomi Horchak-Morris 739 Studies on fluorescein—V. The absorbance of fluorescein in the ultraviolet, as a function of pH

Preliminary Communications

Akira Sano, Masaaki Takezawa and Shoji Takitani 743 Fluorometric determination of cyanide with 2,3-naphthalenedialdehyde and taurine

J. J. Laserna, A. Berthod and J. D. Winefordner 745 Quantitative analysis by surface-enhanced Raman spectrometry on silver hydrosols in a flow-injection system

Papers Received i

Publications Received iii

Questionnaire: Software Survey Section v

SEPTEMBER

S. Al-Najafi, C. A. Wellington, A. P. Wade, T. J. Sly and D. Betteridge 749 Computer-assisted optimization of HPLC with post-column reaction for the determination of amino-acids

Mikael Wasberg and Péter Sárkány 757 Control of voltammetric experiments by means of the Commodore 64 microcomputer

C. Louis et J. Bessière 763 Diagrammes potentiel–niveau d'acidité dans les milieux H_2O–H_3PO_4—I. Systèmes électrochimiques ne faisant pas intervenir le proton

C. Louis et J. Bessière 771 Diagrammes potentiel–niveau d'acidité dans les milieux H_2O–H_3PO_4—II. Systèmes électrochimiques faisant intervenir le proton

Shigeo Umetani, Kohji Maeda, Sorin Kihara and Masakazu Matsui 779 Solvent extraction of lithium and sodium with 4-benzoyl or 4-perfluoroacyl-5-pyrazolone and TOPO

Kenneth Bäckström, Lars-Göran Danielsson, Folke Ingman and Zhao Huazhang 783 Studies of two-phase equilibria by liquid–liquid segmented flow extraction of dithiocarbamic acids into various solvents

Y. Lingappa, K. Hussain Reddy and D. Venkata Reddy 789 Analytical properties of 2-nitro-5,6-dimethyl-1,3-indanedione dithiosemicarbazone

Magda Ayad, Saied Belal, Afaf Abou El Kheir and Sobhi El Adl 793 Utilization of charge-transfer complexation in the spectrophotometric determination of some monosaccharides through their osazone intermediates

E. Postaire, C. Viel, M. Hamon et A. Gond 799 Oxydation vanadique de l'iodométhylate de *p*-chlorobenzyl-4 diméthoxy-6,7 isoquinoléine en milieu sulfurique aqueux

Short Communications

V. Chandramouli, R. B. Yadav and P. R. Vasudeva Rao 807 A wet chemical method for the estimation of carbon in uranium carbides

Fatma Basyoni Salem 810 Spectrophotometric and titrimetric determination of catecholamines

Zaofan Zhao, Xiaohua Cai and Peibiao Li 813 The uranium–Xylidyl Blue I complex and its application in linear sweep polarography

Analytical Data

Leo Harju 817 Determination of stability constants for alkaline-earth and alkali metal ion complexes of glycine by spectrophotometry

Software Survey Section 821 JESS; LU4D

Papers Received i

Publications Received ii

Notice iii

Questionnaire: Software Survey Section v

OCTOBER

Louis Gordon Memorial Award III

Kunio Shiraishi, Hisao Kawamura and Gi-ichiro Tanaka 823 Determination of alkaline-earth metals in foetus bones by inductively-coupled plasma atomic-emission spectrometry

Lena Hansson, Jean Pettersson and Åke Olin 829 A comparison of two digestion procedures for the determination of selenium in biological material

Fernando de Pablos, Guillermina Galan and Jose Gomez Ariza 835 Fluorimetric determination of gallium in a nickel alloy and aluminium with *N*-oxalylamine(salicylaldehyde hydrazone)

M. L. Simões Gonçalves and A. M. Mota 839 Complexes of vanadyl and uranyl ions with the chelating groups of humic matter

Peter G. Mitchell and Joseph Sneddon 849 Direct determination of metals in milligram masses and microlitre volumes by direct-current argon-plasma emission spectrometry with sample introduction by electrothermal vaporization

P. C. Ioannou 857 A simple and rapid fluorimetric method for the microdetermination of isonicotinic acid hydrazide

J. Kragten and L. G. Decnop-Weever 861 Hydroxide complexes of lanthanides—VIII. Lanthanum(III) in perchlorate medium

Adam Mierzwinski and Zygfryd Witkiewicz 865 Piezoelectric detectors coated with liquid-crystal materials

L. E. Zel'tser, Sh. Talipov and N. G. Verechagina 873 Sensitive luminescence analysis for inorganic ions

Piotr Paneth 877 Some analytical aspects of the measurement of heavy-atom kinetic isotope effects

Short Communications

D. Amin and Talal A. K. Al-Allaf 885 Iodimetric determination of organolead compounds

M. S. Ionescu, M. Lazarescu, A. Ionescu and G. E. Baiulescu 887 Use of an ion-selective membrane electrode for the determination of the active components in Intestopan

Sadanobu Inoue, Suwaru Hoshi and Mutsuya Matsubara 889 Spectrophotometric determination of titanium with *N*-*m*-tolyl-*N*-phenylhydroxylamine and its application to environmental samples

M. T. Vidal and M. de la Guardia 892 Influence of the nature of organic phase emulsions on sensitivity in atomic-absorption determinations

Franz W. E. Strelow and Tjaart N. van der Walt 895 Separation of trace amounts of indium, gallium and aluminium from each other by cation-exchange chromatography on AG50W-X4 resin

Publications Received i

Notices iii

Questionnaire: Software Survey Section vii

NOVEMBER

John H. Kalivas 899 Evaluation of volume and matrix effects for the generalized standard addition method

V. J. Koshy and V. N. Garg 905 Spectrophotometric determination of chloride in $Pt–Al_2O_3/SiO_2$ catalysts with $Hg(SCN)_2–Fe^{3+}$ reagent

Joseph Wang and Javad Zadeii 909 Ultrasensitive and selective measurements of tin by adsorptive stripping voltammetry of the tin–tropolone complex

A. Ríos, M. D. Luque De Castro and M. Valcárcel 915 Determination of viscosity with an open–closed flow-injection system

Hirokazu Hara, Yoshiki Wakizaka and Satoshi Okazaki 921 Continuous flow determination of chloride in the non-linear response region with a tubular chloride ion-selective electrode

Chan-Huan Chung, Etsuro Iwamoto and Yuroku Yamamoto 927 Periodic trends in sensitivity and its dependence on the properties of pyrolytic and non-pyrolytic graphite in graphite-furnace atomic-absorption spectrometry

Alessandro De Robertis, Concetta De Stefano, Silvio Sammartano and Carmelo Rigano 933 The determination of formation constants of weak complexes by potentiometric measurements: experimental procedures and calculation methods

K. Torrance and C. Gatford 939 Determination of soluble chromium in simulated PWR coolant by differential-pulse adsorptive stripping voltammetry

C. Labar and L. Lamberts 945 The role of thiourea as additive for solving medium-modification problems in potentiometric stripping analysis

S. Arpadjan, M. Mitewa and P. R. Bontchev 953 Liquid–liquid extraction of metal ions by the 6-membered N-containing macrocycle hexacyclen

L. Schumack and A. Chow 957 Extraction of aromatic organic compounds by polyurethane foam

Short Communications

David A. Radspinner and E. L. Wehry 963 Determination of molecular nitrogen by electron-impact induced fluorescence

S. Jaya, T. Prasada Rao and G. Prabhakara Rao 965 Galvanic stripping determination of trace amounts of lead

Salwa R. El-Shabouri, Fardous A. Mohamed and Abdel-Maboud I. Mohamed 968 A rapid spectrophotometric method for determination of piperazine

Analytical Data

Montserrat Filella, Núria Garriga and Alvaro Izquierdo 971 Formation constants for the complexes of 2-mercapto-3-phenylpropanoate with nickel(II) and hydrogen ions

Papers Received i

Publications Received ii

Corrigenda iii

Questionnaire: Software Survey Section v

DECEMBER

Shou-zhou Yao, Jing Shiao and Li-hua Nie 977 Sulpha-drug sensitive membrane electrodes and their analytical applications

Shou-zhou Yao, Jing Shiao and Li-hua Nie	983	A trimethoprim-selective membrane electrode
M. Blanco, J. Gené, H. Iturriaga, S. Maspoch and J. Riba	987	Diode-array detectors in flow-injection analysis. Mixture resolution by multi-wavelength analysis
Thuraya M. Karadakhi, Fadhil M. Najib and Fahmi A. Mohammed	995	Determination of traces of Zn, Cd, Pb and Cu in white sugar by anodic stripping voltammetry and a modified oxygen-flask combustion technique
Miroslav Hátle	1001	Determination of mercury by differential-pulse anodic-stripping voltammetry with various working electrodes. Application to the analysis of natural water sediments
Spas D. Kolev and Ernő Pungor	1009	End effects in flow-analysis and process systems
A. Assamoi, M. Hamon, M. Chastagnier et M. Chaigneau	1015	Oxydation vanadique de la quinine et de quelques analogues. Application au dosage d'un nouvel antipaludéen: la méfloquine
R. Montes and J. J. Laserna	1021	Spectrophotometric reaction-rate method for the determination of nitrite in waters with pyridine-2-aldehyde 2-pyridylhydrazone
J. Pascual	1027	Determination of several trace elements in silicate rocks by an XRF method with background and matrix corrections
Short Communications		
N. Rukmani Desikan and M. Vijayakumar	1033	An indirect complexometric method for determination of tin in alloys
F. G. Bănică and E. Diacu	1035	Determination of chloride in sulphuric acid by potentiometric mercurometric titration
Analytical Data		
G. B. Reartes, S. J. Liberman and M. A. Blesa	1039	Acidity constants of benzidine in aqueous solutions
J. G. Sen Gupta	1043	Analysis of the CCRMP Oka-2 rare-earth reference mineral of the britholite–apatite series by electrothermal atomic-absorption and inductively-coupled plasma atomic-emission spectrometry
Software Survey Section	1049	ENZFITTER; Computerized Quality Control
Papers Received	i	
Notices	iii	
Questionnaire: Software Survey Section	v	